

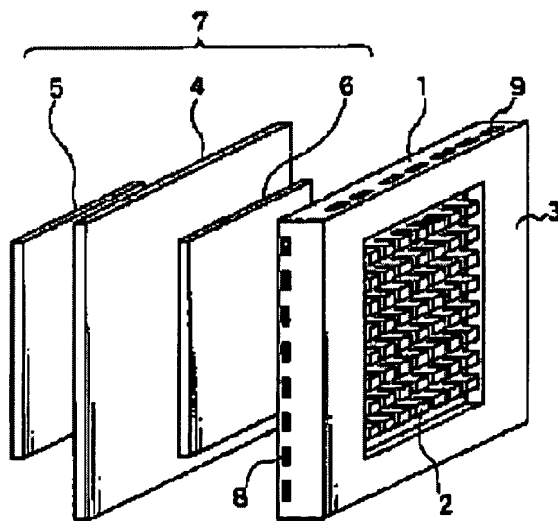
SOLID POLYMER ELECTROLYTE FUEL CELL

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Abstract of JP10074527

PROBLEM TO BE SOLVED: To easily manufacture in simple structure, make small and lightweight, and reduce production cost by constituting a bipolar plate with a peripheral frame body of a polymer with high acid resistant characteristics, high hydrolysis resistant characteristics, and high fluidity and a carbon plate or the like.

SOLUTION: A bipolar plate 1 consists of a carbon plate or a conductive substrate having a projection part and a recessed part on both surfaces and a resin frame body 3 surrounding the periphery of the conductive substrate 2, and is used as an end plate of a battery. By stacking film electrode composite bodies 7, an opening part of a recessed part of the substrate 2 ensures passages for supplying gas to the electrode surfaces of a cathode 5 and an anode 6. The plate 1 is manufactured in such a way that a polymer with high acid resistance, high hydrolysis resistance, and high fluidity is used, a substrate 2 is inserted into a mold of an injection molding machine and injection-molded to integrally mold the plate 1. The plate 1 with high strength and high elastic modulus is obtained, a battery is made small and lightweight, and manufacturing cost is reduced.



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